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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

March 22, 2002

To: Spectron Site File

From: Robert J. Sanchez, Spectron Remedial Project Manager (RPM)

Subject: Spectron Superfund Site, Elkton, Maryland
Discussion with Randy Sturgeon, EPA RPM

Attendees: Rob Sanchez, Spectron RPM , and
Randy Sturgeon, EPA RPM

Background: Roy F. Weston, Inc has been providing technical support for the Spectron Superfund Site via U.S. Army Corp of Engineers (US ACE) Interagency Agreement (IAG) DW96943859. Part of their effort has been to review and comment on feasible alternatives in preparation for the proposed remedial action plan (PRAP). During a recent meeting on March 6, 2002, between EPA, Rob Sanchez and Weston issues were discussed related to the use of lactic acid substrate (i.e., Hydrogen Release Compounds (HRC)) in treating the contaminants at the Spectron site. As a result of that meeting Roy F. Weston, Inc provided meeting minutes notes, dated March 19, 2002 (see attached).

These notes were discussed with former Spectron RPM Randy Sturgeon. He pointed out specific issues that needed further explanation. We discussed these issues at length and since they relate to my remedy selection I have documented my responses to the issues Mr. Sturgeon presented here:

- The notes seem to expand beyond using HRC as the treatment material (see paragraph 2C). Are you still looking at other treatment materials?

In response to a EPA question Weston did point out that other treatment material could be considered to treat contaminants. At the time of this meeting EPA was still determining the proper treatment material for the known contaminants. Since the meeting conversations with EPA Subsurface Remediation Team, located in Ada Idaho has clearly identified that HRC would be an effective treatment material. Therefore while EPA has determined that this material is an effective treatment, EPA is still gathering information on other compatible materials that may be used in conjunction with HRC to enhance treatment.

- If the contamination in the deep bedrock will continue to re-contaminate the shallow soil why not treat the deep bedrock first? (See paragraph 8C).

While it is clear that a large portion of the dense non-aqueous phase liquids (DNAPLs) have migrated to the rock fractures in the deep bedrock, there still exists a principle threat in the contamination located in the shallow soils. Based on the soil

boring logs it appears that there is a low permeability layer that tapers off as it approaches the stream. This low permeability layer has been found in the boring logs to have non-recoverable DNAPL perched above it. It is this contamination that the treatments will reduce. Of course, even if the treatments were capable of reducing the contamination down to zero it is true that the upward flow of the deep bedrock contamination could re-contaminate the shallow soil in the saturated zone. EPA intends to investigate and develop feasible alternative for remediation of the deep bedrock, however, despite the deep bedrock contamination there is a separate principle threat to deal with in the shallow soils.

- The notes indicate three (3) applications over five (5) years of the HRC. How do you know when to stop applying the HRC?

First it is believed that due to the contamination in fractures of the deep bedrock that it will be very difficult to remove all of the contamination DNAPL. What is most troublesome with this statement is that it means that the shallow soils in the saturated zone will continue to be re-contaminated again and again. However, while we realize that we cannot get the saturated soil completely clean, we can reduce the existing contamination that lays latent. Based on our sampling we have quantified the overall amount of contamination that exists in the shallow soil. We can calculate the amount of HRC needed to treat this quantity of contaminate. The formula used for this contamination evaluates the amount of HRC needed to treat the contaminants as they exists in the soil matrix. We determined 3 applications of HRC over 5 years using a total of 15,000 pounds of HRC.

- The notes state that "...a more thorough evaluation of this approach should be conducted." This evaluation should have been more comprehensive and not require additional investigation.

This evaluation was a preliminary and supplemental effort done to complete the basic requirements of the meeting and to respond to meeting notes. Additional evaluation has been conducted by the EPA RPM.